

Virginia Division of Consolidated Laboratory Services

SULFATE ION IN WATER by ASTM D516-02					
Facility Name: _____ VELAP ID _____					
Assessor Name: _____ Analyst Name: _____ Inspection Date _____					
Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Records Examined: SOP Number/ Revision/ Date _____ Analyst: _____					
Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____					
If a spectrophotometer was used, was it used at 420 nm with a light path of 4 to 5 cm?	7.1.2				
If a filter photometer was used, was it used with a violet filter having a maximum near 420 nm and a light path of 4 to 5 cm?	7.1.3				
Were samples filtered if turbid?	11.1				
Were sample temperatures adjusted to between 15 and 30°C prior to analysis?	11.1				
Were Barium Chloride crystals of between 20 and 30 mesh?	8.3				
After the addition of Barium Chloride crystals to the samples, were they stirred at a constant speed for exactly 1 minute?	11.5				
Immediately after stirring period ended, were sample turbidities measured at 30 second intervals for 4 minutes, and the maximum turbidity during that period recorded?	11.6				
If interferences were suspected in a sample, were interferences ruled out by analyzing a two-fold dilution of a sample to have one half of the sulfate determined in the undiluted sample?	11.8				
Was a calibration standards analyzed by the same process as the samples?	10.1				
Were sample sulfate concentrations calculated against a calibration curve?	12.1				
Was the calibration curve composed of a calibration blank and at least four calibration standards?	14.1.1				
Notes/Comments:					

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Did the calibration curves have a correlation coefficient ≥ 0.990 ?	14.1.1				
Was the calibration blank analyzed at the end of each batch run?	14.1.1				
Was an instrument check standard analyzed at a rate of 10% of samples and to fall between 80 and 120% of expected value?	14.1.2				
Was a laboratory control sample analyzed with each batch at a minimum rate of 10% of samples?	14.1.4				
Notes/Comments:					